NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

PEST MANAGEMENT
(acre)
CODE 595

DEFINITION

Utilizing environmentally sensitive prevention, avoidance, monitoring and suppression strategies, to manage weeds, insects, diseases, animals and other organisms (including invasive and non-invasive species), that directly or indirectly cause damage or annoyance.

PURPOSES

This practice is applied as part of a resource management system to support one or more of the following purposes:

- Enhance quantity and quality of commodities. Minimize negative impacts of pest control on soil resources, water resources, air resources, plant resources, animal resources and/or humans.

CONDITIONS WHERE PRACTICE APPLIES

Wherever pests will be managed.

CRITERIA

General Criteria Applicable to All Purposes

A pest management component of a conservation plan shall be developed.

All methods of pest management must comply with Federal, State, and local regulations, including management plans for invasive pest species, noxious weeds and disease vectors. Compliance with the Food Quality Protection Act (FQPA), Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), Worker Protection Standard (WPS) and Interim Endangered Species Protection Program (H7506C)) is required for chemical controls.

Integrated Pest Management (IPM) that strives to balance economics, efficacy and environmental risk, where available, shall be incorporated into planning alternatives. (IPM is a sustainable approach to pest control that combines the use of prevention, avoidance, monitoring and suppression strategies, to maintain pest populations below economically damaging levels, to minimize pest resistance, and to minimize harmful effects of pest control on human health and environmental resources. IPM suppression systems include biological controls, cultural controls and the judicious use of chemical controls.). Arkansas shall use a combination of biological, chemical, and cultural methods of pest management.

An appropriate set of mitigation techniques must be planned and implemented to reduce the environmental risks of pest management activities in accordance with quality criteria in the local Field Office Technical Guide. Mitigation techniques include practices like a filter strips or crop rotation, and management techniques like application method and timing.

All methods of pest management must be integrated with other components of the conservation plan.

Clients shall be instructed to pay special attention to all environmental hazards and site-specific application criteria listed on pesticide labels and

contained in Extension and Crop Consultant recommendations.

Additional Criteria to Protect Quantity and Quality of Commodities

As an essential component of both commodity-specific IPM and IPM general principles, clients shall be encouraged to use the minimum level of pest control necessary to meet their objectives for commodity quantity and quality.

Additional Criteria to Protect Soil Resources

In conjunction with other conservation practices, the number, sequence and timing of tillage operations shall be managed to maintain soil quality and maintain soil loss at or below the soil loss tolerance (T) or any other planned soil loss objective. Arkansas shall use the Revised Universal Soil Loss Equation (RUSLE) for predicting erosion, and soil quality rating procedures such as the Soil Conditioning Index (SCI).

Clients shall be encouraged to pay special attention to pesticide label instructions for limiting pesticide residues in soil that may negatively impact non-target plants, animals and humans.

Additional Criteria to Protect Water Resources

Pest management environmental risks, including the impacts of pesticides in ground and surface water on humans and non-target plants, animals, must be evaluated for all identified water resource concerns. Arkansas shall include approved evaluation procedures such as NRCS' Windows Pesticide Screening Tool (WIN-PST).

When a chosen alternative has significant potential to negatively impact important water resources, (e.g., WIN-PST “Extra High”, “High” or “Intermediate” soil/pesticide human risk ratings in the drainage area of a drinking water reservoir), an appropriate set of mitigating practices or techniques must be put in place to address risks to humans and non-target plants and animals. Arkansas shall identify appropriate mitigation practices by pesticide loss pathway and resource concern e.g., residue management, water management and conservation buffers may be appropriate mitigation practices for pesticide solution loss that is impacting a surface water body.

The number, sequence and timing of tillage operations shall be managed in conjunction with other sediment control tactics and practices, in order to minimize sediment losses to nearby surface water bodies.

POTENTIAL PESTICIDE LOSS TO LEACHING MATRIX

:Soil Leaching	Pesticide Leaching Potential			:
: Potential	: Large	: Medium	: Small	:Total:
:High	: Potential 1	: Potential 1	: Potential 2	: 3:
:Intermediate	: Potential 1	: Potential 2	: Potential 3	: 3:
:Nominal	: Potential 2	: Potential 3	: Potential 3	: 3:

*Totals refer to total potential use.

POTENTIAL PESTICIDE LOSS TO SURFACE RUNOFF MATRIX

: Soil Runoff	: Pesticide Surface Runoff Potential		:
: Potential	: Large	: Medium	: Small :
: High	: Potential 1	: Potential 1	: Potential 2 :
:Intermediate	: Potential 1	: Potential 2	: Potential 3 :
: Nominal	: Potential 2	: Potential 3	: Potential 3 :

Additional Criteria to Protect Air Resources

Clients shall be encouraged to pay special attention to pesticide label instructions for minimizing volatilization and drift that may

negatively impact non-target plants, animals and humans.

Additional Criteria to Protect Plant Resources

Clients shall be encouraged to pay special attention to pesticide label instructions including those directed at:

- Preventing misdirected pest management control measures that negatively impact plants (e.g., removing pesticide residues from sprayers before moving to the next crop and properly adjusting cultivator teeth and flame burners).
- Appropriate climatic conditions, crop stage, soil moisture, pH, and organic matter in order to protect plant health.
- Limiting pesticide residues in soil that can carry over and harm subsequent crops.

Additional Criteria to Protect Animal Resources

Clients shall be encouraged to pay special attention to pesticide label instructions that minimize negative impacts to animals.

Additional Criteria to Protect Humans

Clients shall be encouraged to pay special attention to pesticide label instructions that minimize negative impacts to humans.

CONSIDERATIONS

If commodity-specific IPM is not available, the following IPM methods and principles should be considered:

- Prevention, such as using pest-free seeds and transplants, cleaning tillage and harvesting equipment between fields, irrigation scheduling to avoid situations conducive to disease development, etc.
- Avoidance, such as using pest resistant varieties, crop rotation, trap crops, etc.
- Monitoring, such as pest scouting, soil testing, weather forecasting, etc. to help target suppression strategies and avoid routine preventative pest control.
- Suppression, such as cultural, biological and chemical controls, that can reduce a pest population or its impacts. Chemical controls should be used judiciously in order to minimize environmental risk and pest resistance.

Adequate plant nutrients and soil moisture, including favorable pH and soil conditions, should be available to reduce plant stress, improve plant vigor and increase the plant's overall ability to tolerate pests.

On irrigated land, irrigation water management should be designed to minimize pest management environmental risk.

PLANS AND SPECIFICATIONS

The pest management component of a conservation plan shall be prepared in accordance with the criteria of this standard and shall describe the requirements for applying the practice to achieve its intended purpose (s).
As a minimum, the pest management component of a conservation plan shall include:

- Plan map and soil map of managed sites, if applicable (use RMS plan maps if available).
- Location of sensitive resources and setbacks, if applicable (use RMS plan maps if available).
- Environmental risk analysis, with approved tools and/or procedures, for probable pest management recommendations by crop (if applicable) and pest.
- Interpretation of the environmental risk analysis and identification of appropriate mitigation practices and techniques.
- Operation and maintenance requirements.

OPERATION AND MAINTENANCE

The pest management component of a conservation plan shall include appropriate

operation and maintenance items for the client. These may include:

- Review and update the plan periodically in order to incorporate new IPM technology, respond to cropping system and pest complex changes, and avoid the development of pest resistance.
- Maintain mitigation techniques identified in the plan in order to ensure continued effectiveness.
- Develop a safety plan for individuals exposed to chemicals, including telephone numbers and addresses of emergency treatment centers for individuals exposed to chemicals and the telephone number for the nearest poison control center. The National Pesticide Telecommunications Network (NPTN) telephone number in Corvallis, Oregon may also be given for non-emergency information:
  1-800-424-7378
  Monday - Friday
  6:30 a.m. to 4:30 p.m. Pacific Time.

  For advice and assistance with emergency spills that involve agrichemicals, the local emergency telephone number should be provided. The national 24-hour CHEMTREC telephone number may also be given:
  1-800-424-9300
- Follow label requirements for Mixing/loading setbacks from wells, seasonal streams and rivers, natural or impounded ponds and lakes, or reservoirs.
- Post signs according to label directions and/or Federal, State, and local laws around sites that have been treated. Follow restricted entry intervals.
- Dispose of pesticides and pesticide containers in accordance with label directions and adhere to Federal, State, and local regulations.
- Read and follow label directions and maintain appropriate Material Safety Data Sheets (MSDS).
- Calibrate application equipment according to Extension and/or manufacturer recommendations before each seasonal use and with each major chemical change.
- Replace worn nozzle tips, cracked hoses, and faulty gauges.
- Maintain records of pest management for at least two years. Pesticide application records shall be in accordance with USDA Agricultural Marketing Service's Pesticide Record Keeping Program and state specific requirements.
- Arkansas Recordkeeping Requirements for Restricted-Use Pesticides shall include:
  - Date
  - EPA Registration Number
  - Field or Site ID
  - Time of Application
  - Air Temperature
  - Wind Speed and Direction
  - Crop
  - Name of Applicator
  - Product Name
  - Pesticide License Number
  - County, Distance and Direction from the Nearest
  - Town
  - Type of Equipment, “N” Number for Aircraft
  - Signature of Owner of Crop
  - Address of Owner of Crop